

Appln. No. Serial No. 09/833,219

Amdt. Dated 09/11/2006

Page 2 of 11

RECEIVED
CENTRAL FAX CENTER

SEP 11 2006

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Cancelled)

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (Cancelled)

7. (Cancelled)

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Currently Amended) The method of claim 2834, wherein actively probing one or more alternate paths comprises obtaining the probe includes information about the network latency of the ~~second~~ one or more alternate paths from the source to the destination.

Appln. No. Serial No. 09/833,219

Amdt. Dated 09/11/2006

Page 3 of 11

12. (Currently Amended) The method of claim ~~28~~34, wherein actively probing one or more alternate paths comprises obtaining the probe includes information about the network loss of the ~~second~~ one or more alternate paths from the source to the destination.

13. (Currently Amended) The method of claim ~~28~~34, wherein actively probing one or more alternate paths comprises obtaining the probe includes information about network jitter of the ~~second~~ one or more alternate paths from the source to the destination.

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Original) A system for maintaining a traffic service level of a traffic flow in which the traffic flows to and flows from a computer network having a source, the computer network coupled to at least one of a plurality of networks, each of the networks includes a plurality of paths for transporting the traffic to a destination, where at least two of the networks are electrically coupled at an interconnection point and where the traffic flows through the interconnection point, the system comprising:

a passive flow analyzer configured to receive the traffic flow;

a calibrator configured to actively probe one or more alternative paths to the destination to determine a subset of alternative paths;

a traffic flow repository coupled between the passive flow analyzer and the calibrator to store information regarding the alternative paths and the traffic flow;

Appln. No. Serial No. 09/833,219

Amdt. Dated 09/11/2006

Page 4 of 11

a controller coupled between the passive flow analyzer and the calibrator;
an optimizer coupled to the traffic flow repository to determine optimized ingress paths;
a modulator coupled between the optimizer and the controller to generate a modified routing table; and
a router to route the traffic flow according to the modified routing table,
wherein the modified routing table includes a changed source address where the changed source address is associated with an optimized ingress path from the destination and an alternate path to the destination.

20. (Original) A system for maintaining a traffic service level over at least two of the networks electrically coupled at an interconnection point, where traffic flows through the interconnection point, by changing default routing tables of a plurality of regional networks, where a first regional network includes a first region router coupled to a first region route server, and a second regional network includes a second region router coupled to a second region route server, the system comprising:

a first region passive flow analyzer configured to receive the traffic flow from the first region;

a second region passive flow analyzer configured to receive the traffic flow from the second region;

a first region calibrator configured to actively probe one or more alternative paths to the destination to determine a first subset of alternative paths;

a second region calibrator configured to actively probe one or more alternative paths to the destination to determine a second subset of alternative paths;

a central traffic flow repository coupled between the first region passive flow analyzer, the second region passive flow analyzer, the first region calibrator and the second calibrator to store information regarding the first subset and the second subset of alternative paths and the first region and the second region traffic flow; and

a central route server coupled between the central traffic flow repository and

Appln. No. Serial No. **09/833,219**

Amdt. Dated 09/11/2006

Page 5 of 11

the first region route server and the second region route server to receive a first region routing table and a second region routing table, respectively,

wherein, the central route server provides the first route server with a first modified routing table and provides the second route server with a second modified routing table.

21. (Original) The system of claim 20, wherein the central route server is coupled to a second central route server.

22. (Original) The system of claim 20, wherein the central route server is coupled to a parent central route server, wherein the parent central route server is further coupled to one or more central router servers where each of the one or more central router servers are associated with one or more regions.

23. (Original) The system of claim 22, wherein the parent central route server provides the first central route server with a first central modified routing table and provides the one or more central route servers with one or more central modified routing tables.

24. (Original) The system of claim 20, further comprising a first region traffic flow repository coupled to the first region passive flow analyzer to store information regarding the alternative paths and the traffic flow of the first region; and

a second region traffic flow repository coupled to the second region passive flow analyzer to store information regarding the alternative paths and the traffic flow of the second region.

25. (Original) A system for maintaining a traffic service level over at least two of the networks electrically coupled at an interconnection point, where traffic flows through the interconnection point, by changing default routing tables of a plurality of regional networks,

Appln. No. Serial No. 09/833,219

Amdt. Dated 09/11/2006

Page 6 of 11

where a first regional network includes a first region router coupled to a first region route server, and a second regional network includes a second region router coupled to a second region route server, the system comprising:

a first region passive flow analyzer configured to receive the traffic flow from the first region;

a second region passive flow analyzer configured to receive the traffic flow from the second region;

a first region calibrator configured to actively probe one or more alternative paths to the destination to determine a first subset of alternative paths;

a second region calibrator configured to actively probe one or more alternative paths to the destination to determine a second subset of alternative paths;

a first region calibrator repository coupled to the first calibrator to store information regarding the alternative of the first region;

a second region calibrator repository coupled to the second calibrator to store information regarding the alternative of the second region;

a first region controller coupled between the first region calibrator repository and the first region passive flow analyzer, the first region controller further coupled to the first region route server to advertise a first region metric to other regions; and

a second region controller coupled between the second region calibrator repository and the second region passive flow analyzer, the second region controller further coupled to the second region route server to advertise a second region metric to other regions,

wherein the first region route server and the second region route server are coupled to resolve a service level violation from either region.

26. (Cancelled)

27. (Cancelled)

28. (Cancelled)

Appln. No. Serial No. 09/833,219

Amdt. Dated 09/11/2006

Page 7 of 11

29. (Currently Amended) The method of claim 28~~34~~, wherein actively probing one or more alternate paths comprises transmitting a probe along the one or more alternate paths, the probe ~~comprises~~ comprising one of a Sting probe, a lightweight TCP-based probe, and a traceroute probe.

30. (Cancelled)

31. (Cancelled)

32. (Cancelled)

33. (Cancelled)

34. (New) A method for maintaining a traffic service level of a traffic flow in which the traffic flows from a source to a destination through a plurality of networks, comprising:
analyzing the traffic flow using a passive flow analyzer;
actively probing one or more alternative paths to the destination to determine a subset of alternate paths;
storing information regarding the alternative paths and the traffic flow;
determining optimized ingress paths based on the stored information;
modifying a routing table to include a changed source address, wherein the changed source address is associated with an optimized ingress path from the destination and an alternate path to the destination; and
routing the traffic flow according to the modified routing table.

35. (New) A method for maintaining a traffic service level for a traffic flow in which the traffic flows from a source to a destination through a plurality of networks, wherein at least two of the networks are electrically coupled at an interconnection point, comprising:

Appln. No. Serial No. 09/833,219

Amdt. Dated 09/11/2006

Page 8 of 11

passively monitoring the traffic flow at a single point along a first path to the destination to determine data flow characteristics of the first path;

actively probing a second path to the destination to determine traffic flow characteristics of the second path;

comparing the traffic flow characteristics of the first path to traffic flow characteristics of the second path to determine an optimized path;

providing a changed source address, wherein the changed source address is associated with an optimized ingress path from the destination; and

routing the traffic flow along the optimized path.

36. (New) The method of Claim 35, further comprising:

comparing the traffic flow characteristics of the first path to one or more performance metrics to determine whether the traffic flow characteristics of the first path satisfy the performance metrics; and

indicating a service level violation when the traffic flow characteristics of the first path fail at least one of the performance metrics.

37. (Now) The method of Claim 35, wherein the changed source address is further associated with an alternate path to the destination.

38. (New) A method for maintaining a traffic service level for a traffic flow in which the traffic flows from a source to a destination through a plurality of networks, wherein at least two of the networks are electrically coupled at an interconnection point, comprising:

passively monitoring the traffic flow at a single point along a first path to the destination to determine data flow characteristics of the first path;

actively probing a second path to the destination to determine traffic flow characteristics of the second path;

comparing the traffic flow characteristics of the first path to traffic flow characteristics of the second path to determine an optimized path;

Appln. No. Serial No. 09/833,219
Amdt. Dated 09/11/2006
Page 9 of 11

providing a changed source address, wherein the changed source address is associated with an alternate path to the destination; and
routing the traffic flow along the optimized path.

39. (New) The method of Claim 38, further comprising:
comparing the traffic flow characteristics of the first path to one or more performance metrics to determine whether the traffic flow characteristics of the first path satisfy the performance metrics; and
indicating a service level violation when the traffic flow characteristics of the first path fail at least one of the performance metrics.

40. (New) The method of Claim 38, wherein the changed source address is further associated with an optimized ingress path from the destination.